

ABSTRACT OF DISCLOSURE

A lead zirconate titanate-based thin film is an epitaxial crystal thin film and has a chemical composition represented by the general formula  $Pb_{1-x} Ln_x Zr_y Ti_{1-y} O_3$  (wherein Ln represents any one selected from the group consisting of lanthanum, lanthanoid elements, niobium, calcium, barium, strontium, iron, manganese and tin; and  $0 \leq x < 1$ ,  $0.43 \leq y \leq 0.65$ ) and whose orientation is {111} (including orientations whose tilt angle from the direction perpendicular to the substrate surface is within  $15^\circ$ ).